

## Managing Network Data Transfers in a Virtual Computer System

### ABSTRACT OF THE DISCLOSURE

A virtual computer system, including one or more virtual machines (VMs), is  
5 connected to a computer network by multiple network interface cards (NICs). The VMs  
are supported by a kernel, which includes a resource manager for allocating system  
resources among the VMs, including network data bandwidth. A NIC manager is  
loaded into the kernel as a driver or is integrated into the kernel, for selecting NICs over  
which outgoing network data is transferred, including providing functions such as  
10 failovers and failbacks, as well as load distribution. Implementing the NIC manager in  
the kernel provides NIC teaming functions to each of the VMs without having to  
implement a NIC teaming solution in each of the VMs, adding to the simplicity, flexibility  
and portability of the VMs. In addition, integrating the NIC manager into the kernel  
improves the kernel's ability to manage the VMs and to implement network resource  
15 allocations for the VMs.